

IN THE CLAIMS:

1. (Original) A method for managing a set of virtual clocks in a data processing system, the method comprising:
responsive to receiving a request to set a clock for a partition in which the request includes a time, setting an offset equal to an elapsed time counter state of a counter; and
storing the time and the offset in association with a partition.
2. (Original) The method of claim 1 further comprising:
responsive to receiving the request to set the clock for the partition, determining whether a flag is equal to a partition identifier for the partition; and
responsive to the flag being equal to the partition identifier, setting a real time clock to the time.
3. (Original) The method of claim 1, wherein the request includes a date.
4. (Original) The method of claim 1 further comprising:
responsive to receiving the request to set the clock for the partition, determining whether a virtual clock has been initialized in the data processing system; and
responsive to an absence of the virtual clock, resetting the counter in the data processing system prior to setting the offset.
5. (Original) The method of claim 1, wherein the partition is a logical partition within a set of logical partitions within the data processing system.
6. (Original) The method of claim 1 further comprising:
returning an acknowledgement after storing the time and the offset.
7. (Original) The method of claim 1, wherein the time and the offset are stored in a non-volatile random access memory.

8. (Original) The method of claim 1, wherein the setting step and the storing step are performed by a host processor in the data processing system.
9. (Original) A method for obtaining a time associated with a partition in a data processing system, the method comprising:
 - responsive to receiving a request for the time associated with a partition,
 - retrieving a time base and an offset associated with the partition;
 - retrieving a counter value from a counter; and
 - identifying the time using the counter value, the time base, and the offset associated with the partition.
10. (Original) The method of claim 9, wherein the identifying step comprises:
 - subtracting the offset from the counter value to form an elapsed count; and
 - adding the elapsed count to the time base to form the current time.
11. (Original) The method of claim 10, wherein the current time includes a date.
12. (Original) The method of claim 10, further comprising multiplying the elapsed count by a scaling factor prior to adding the elapsed count to the time base.
13. (Original) A data processing system comprising:
 - a bus system;
 - a communications unit connected to the bus system;
 - a memory connected to the bus system, wherein the memory includes a set of instructions; and
 - a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to set an offset equal to a counter in response to receiving a request to set a clock for a partition in which the request includes a time and store the time and the offset in association with a partition.

14. (Original) A data processing system comprising:
a bus system;
a communications unit connected to the bus system;
a memory connected to the bus system, wherein the memory includes a set of instructions; and
a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to retrieve a time base and an offset associated with the partition in response to receiving a request for the time associated with a partition; retrieve a counter value from a counter; and identify the time using the counter value, the time base, and the offset associated with the partition.
15. (Original) A data processing system for managing a clock in a data processing system, the data processing system comprising:
setting means, responsive to receiving a request to set a clock for a partition in which the request includes a time, for setting an offset equal to an elapsed time counter state of a counter; and
storing means for storing the time and the offset in association with a partition.
16. (Original) The data processing system of claim 15 further comprising:
determining means, responsive to receiving the request to set the clock for the partition, for determining whether a flag is equal to a partition identifier for the partition; and
setting means, responsive to the flag being equal to the partition identifier, for setting a real time clock to the time.
17. (Original) The data processing system of claim 15, wherein the request includes a date.

18. (Original) The data processing system of claim 15 further comprising:
determining means, responsive to receiving the request to set the clock for the partition, for determining whether a virtual clock has been initialized in the data processing system; and
resetting means, responsive to an absence of the virtual clock, for resetting the counter in the data processing system prior to setting the offset.
19. (Original) The data processing system of claim 15, wherein the partition is a logical partition within a set of logical partitions within the data processing system.
20. (Original) The data processing system of claim 15 further comprising:
returning means for returning an acknowledgement after storing the time and the offset.
21. (Original) The data processing system of claim 15, wherein the time and the offset are stored in a non-volatile random access memory.
22. (Original) The data processing system of claim 15, wherein the setting step and the storing step are performed by a host processor in the data processing system.
23. (Original) A data processing system for obtaining a time associated with a partition in the data processing system, the data processing system comprising:
first retrieving means, responsive to receiving a request for the time associated with a partition, for retrieving a time base and an offset associated with the partition;
second retrieving means for retrieving a counter value from a counter; and
identifying means for identifying the time using the counter value, the time base, and the offset associated with the partition.
24. (Original) The data processing system of claim 23, wherein the identifying means comprises:

subtracting means for subtracting the offset from the counter value to form an elapsed count; and

adding means for adding the elapsed count to the time base to form the current time.

25. (Original) The data processing system of claim 24, wherein the current time includes a date.

26. (Original) The data processing system of claim 24, further comprising multiplying the elapsed count by a scaling factor prior to adding the elapsed count to the time base.

27. (Original) A computer program product in a computer readable medium for use managing a clock, the computer program product comprising:

first instructions, responsive to receiving a request to set a clock for a partition in which the request includes a time, for setting an offset equal to an elapsed time counter state of a counter; and

second instructions for storing the time and the offset in association with a partition.

28. (Original) The computer program product of claim 27 further comprising:

first instructions, responsive to receiving the request to set the clock for the partition, for determining whether a flag is equal to a partition identifier for the partition; and

second instructions, responsive to the flag being equal to the partition identifier, for setting a real time clock to the time.

29. (Original) The computer program product of claim 27, wherein the request includes a date.

30. (Original) The computer program product of claim 27 further comprising:
first instructions, responsive to receiving the request to set the clock for the partition, for determining whether a virtual clock has been initialized in the data processing system; and
second instructions, responsive to an absence of the virtual clock, for resetting the counter in the data processing system prior to setting the offset.
31. (Original) The computer program product of claim 27, wherein the partition is a logical partition within a set of logical partitions within the data processing system.
32. (Original) The computer program product of claim 27 further comprising:
first instructions for returning an acknowledgement after storing the time and the offset.
33. (Original) The computer program product of claim 27, wherein the time and the offset are stored in a non-volatile random access memory.
34. (Original) The computer program product of claim 27, wherein the setting step and the storing step are performed by a host processor in the data processing system.
35. (Original) A computer program product in a computer readable medium for use in obtaining a time associated with a partition, the computer program product comprising:
first instructions, responsive to receiving a request for the time associated with a partition, for retrieving a time base and an offset associated with the partition;
second instructions for retrieving a counter value from a counter; and
third instructions for identifying the time using the counter value, the time base, and the offset associated with the partition.
36. (Original) The computer program product of claim 35, wherein the identifying step comprising:

first instructions for subtracting the offset from the counter value to form an elapsed count; and

second instructions for adding the elapsed count to the time base for form the current time.

37. (Original) The computer program product of claim 36, wherein the current time includes a date.

38. (Original) The computer program product of claim 36, further comprising multiplying the elapsed count by a scaling factor prior to adding the elapsed count to the time base.